

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of forming timing parameters for a circuit design having a predefined routing topology within an integrated circuit, the method comprising:

determining sets of timing attributes for the routing topology, each set of timing attributes being associated with one of a plurality of locations within the integrated circuit in which the circuit design ~~may be placed~~ is placeable;

forming timing parameters in response to the sets of timing attributes; and
associating the timing parameters with the routing topology.

2. (Original) The method of claim 1, wherein the routing topology comprises a source and at least one sink, and wherein each set of timing attributes comprises a signal delay between each source-sink pair.

3. (Original) The method of claim 2, wherein the forming timing parameters comprises:

selecting a minimum delay in response to the signal delay for each source-sink pair in each set of timing attributes; and

selecting a maximum delay in response to the signal delay for each source-sink pair in each set of timing attributes.

4. (Original) The method of claim 3, wherein the source provides a clock signal to the at least one sink and wherein each set of timing attributes further comprises a clock skew for each source-sink pair.

5. (Original) The method of claim 4, wherein the forming further comprises selecting a maximum skew in response to the clock skew for each source-sink pair in each set of timing attributes.

6. (Original) The method of claim 1, wherein the integrated circuit is a programmable logic device, and where each of the plurality of locations is defined by a group of

programmable logic blocks.

7. (Original) The method of claim 6, wherein the circuit design comprises at least one clock net.

8. (Currently Amended) A method of analyzing timing of a circuit design associated with a template having a predefined routing topology within an integrated circuit, the method comprising:

determining sets of timing attributes for the routing topology, each set of timing attributes being associated with one of a plurality of locations within the integrated circuit in which the template ~~may be applied~~ is applicable;

forming timing parameters in response to the sets of timing attributes;

associating the timing parameters with the routing topology;

placing and routing the circuit design within the integrated circuit based on the template; and

analyzing the circuit design using the timing parameters.

9. (Original) The method of claim 8, wherein the routing topology comprises a source and at least one sink, and wherein each set of timing attributes comprises a signal delay between each source-sink pair.

10. (Original) The method of claim 9, wherein the forming timing parameters comprises:

selecting a minimum delay in response to the signal delay for each source-sink pair in each set of timing attributes; and

selecting a maximum delay in response to the signal delay for each source-sink pair in each set of timing attributes.

11. (Original) The method of claim 10, wherein the source provides a clock signal to the at least one sink and wherein each set of timing attributes further comprises a clock skew for each source-sink pair.

12. (Original) The method of claim 11, wherein the forming further comprises selecting a maximum skew in response to the clock skew for each source-sink pair in each set of timing attributes.

13. (Original) The method of claim 8, wherein the integrated circuit is a programmable logic device, and where each of the plurality of locations is defined by a group of programmable logic blocks.

14. (Original) The method of claim 13, wherein the circuit design comprises at least one clock net.

15. (Currently Amended) An apparatus for forming timing parameters for a circuit design associated with a template having a predefined routing topology within an integrated circuit, the apparatus comprising:

means for determining sets of timing attributes for the routing topology, each set of timing attributes being associated with one of a plurality of locations within the integrated circuit in which the template ~~may be applied~~ is applicable; and

means for forming timing parameters in response to the sets of timing attributes.

16. (Original) The apparatus of claim 15, further comprising:

means for placing and routing the circuit design within the integrated circuit based on the template; and

means for analyzing the circuit design using the timing parameters.

17. (Currently Amended) A computer readable medium having stored thereon instructions that, when executed by a processor, cause the processor to perform a method of forming timing parameters for a circuit design associated with a template having a predefined routing topology within an integrated circuit, the method comprising:

determining sets of timing attributes for the routing topology, each set of timing attributes being associated with one of a plurality of locations within the integrated circuit in which the template ~~may be applied~~ is applicable;

forming timing parameters in response to the sets of timing attributes; and
associating the timing parameters with the routing topology.

18. (Original) The computer readable medium of claim 17, further comprising:
placing and routing the circuit design within the integrated circuit based on the template; and
analyzing the circuit design using the timing parameters.

19. (Currently Amended) A system for forming timing parameters for a circuit design associated with a template having a predefined routing topology within an integrated circuit, the system comprising:
a processing unit having access to one or more storage devices;
at least a portion of the one or more storage devices having a program product configured to:

determine sets of timing attributes for the routing topology, each set of timing attributes being associated with one of a plurality of locations within the integrated circuit in which the template ~~may be applied~~ is applicable;

form timing parameters in response to the sets of timing attributes; and
associate the timing parameters with the routing topology.

20. (Original) The system of claim 19, wherein the program product is further configured to:
place and route the circuit design within the integrated circuit based on the template; and
analyze the circuit design using the timing parameters.